



Title: Microchannel Heat Exchangers and Methods of Manufacturing the Same

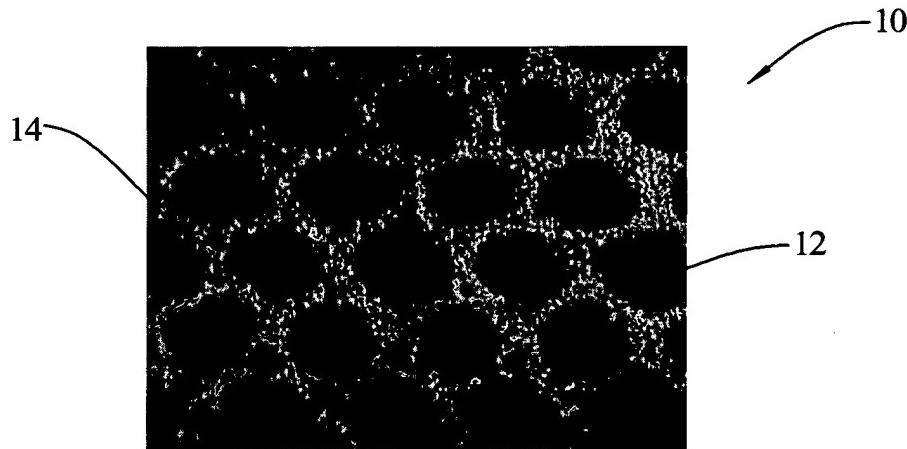
Inventor: Vaidyanathan, et al.

Filed: January 28, 2004

Attorney Docket No. 03248.00093

Sheet 1 of 6

FIG. 1  
(30 X)



BEST AVAILABLE COPY

FIG. 3

FIG. 2

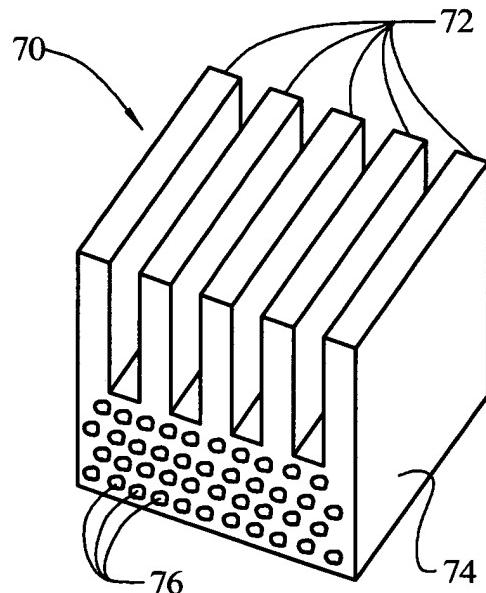
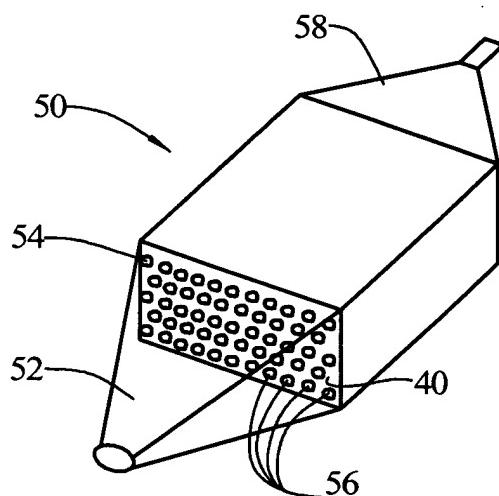


FIG. 4

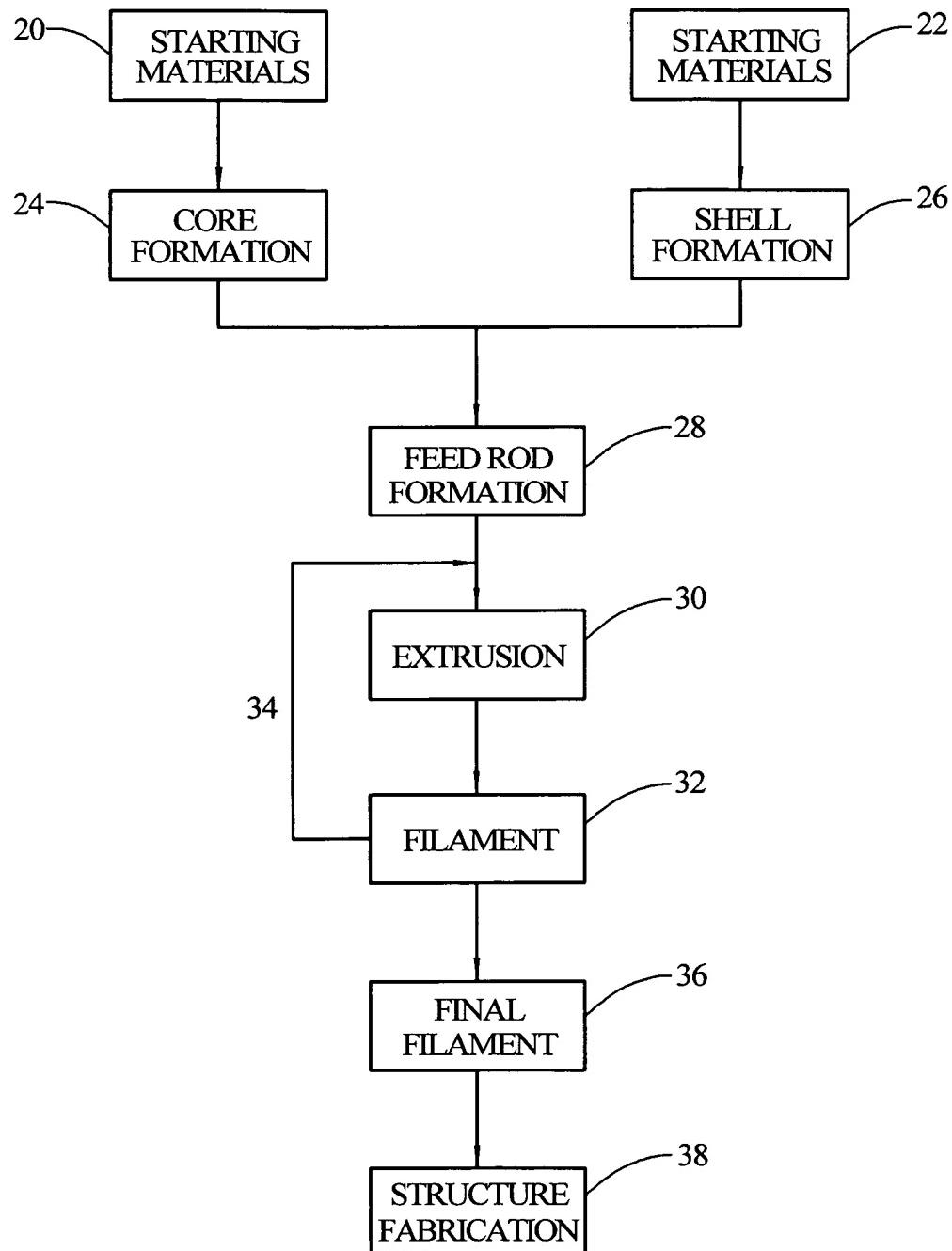


FIG. 5

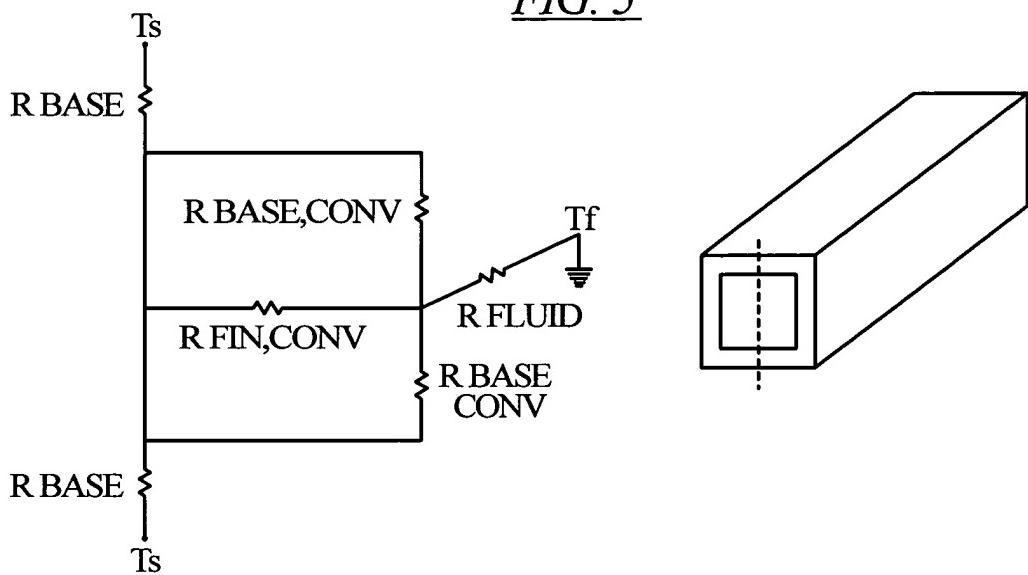


FIG. 6

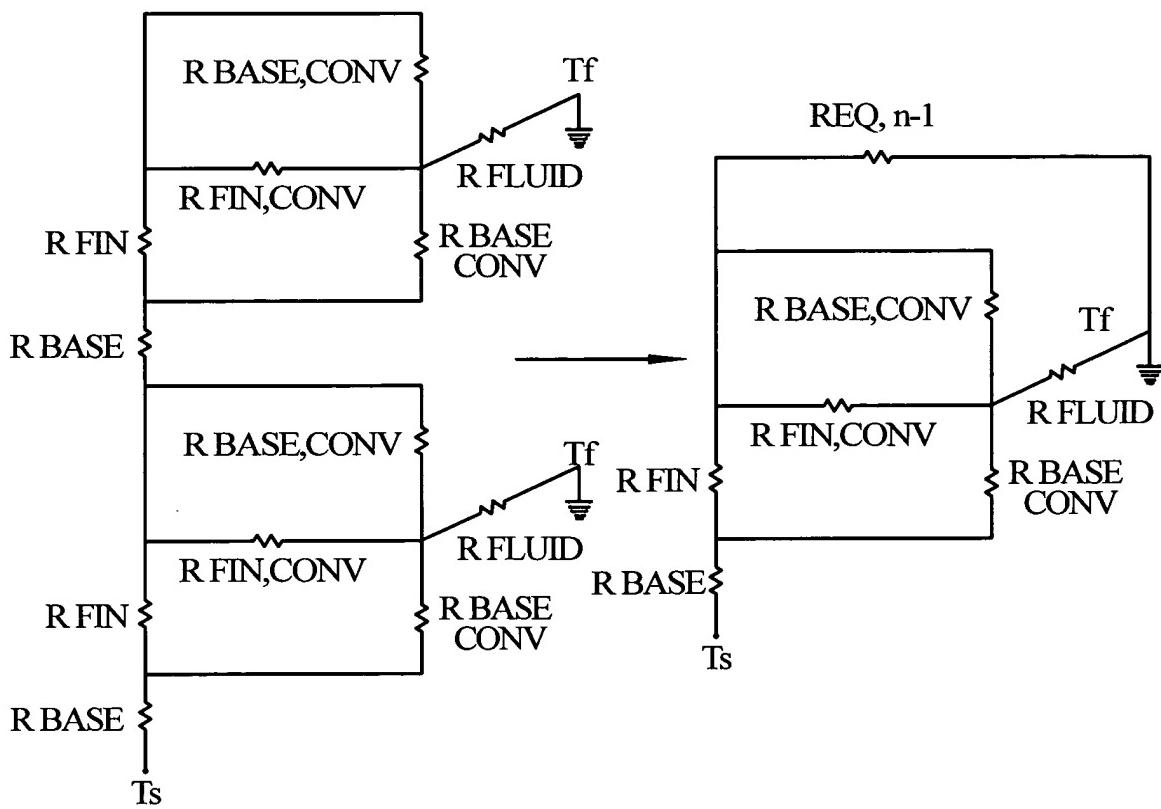


FIG. 7

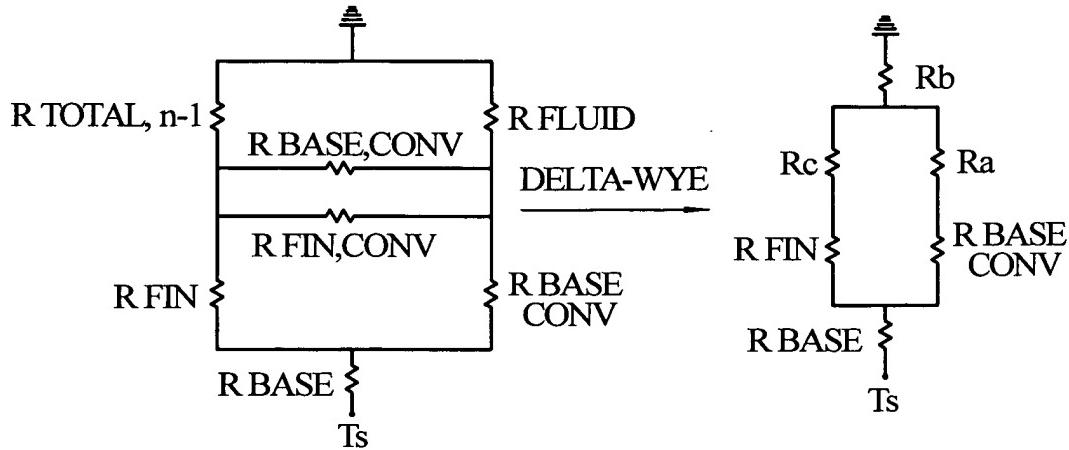


FIG. 8

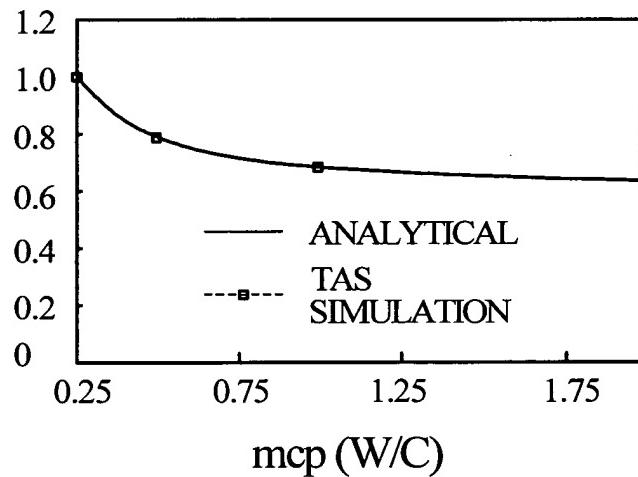


FIG. 9

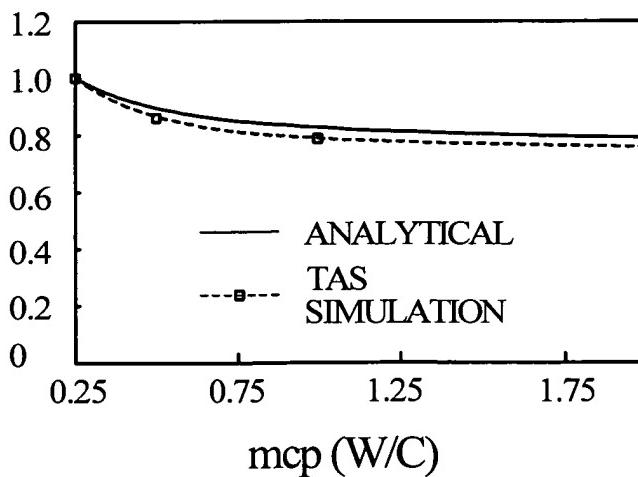
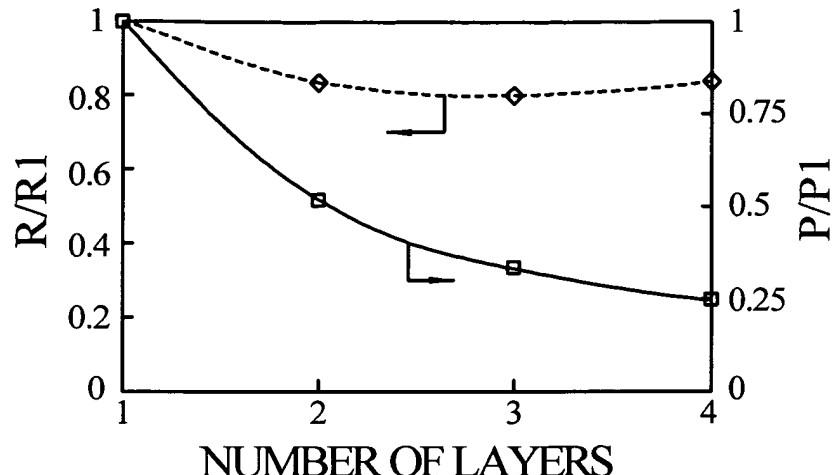


FIG. 10



Optimization of number of layers with fixed overall flow rate with single-sided heating

$R_1$  is the overall thermal resistance for one layer case

$P_1$  is the overall pumping power for one layer case

FIG. 11

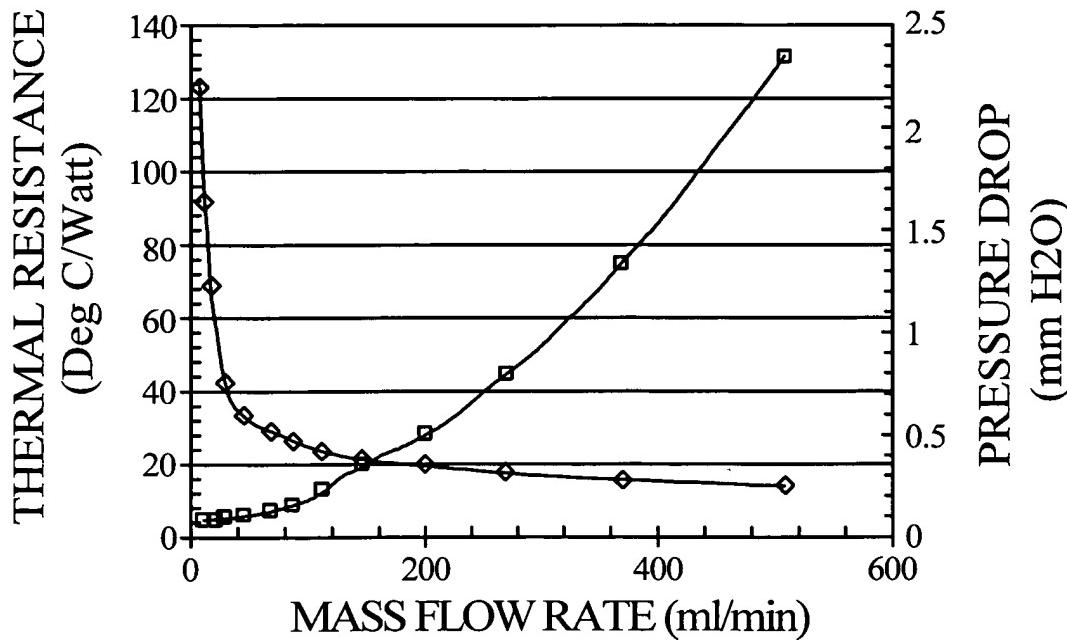


FIG. 12  
 THERMAL RESISTANCE VS MASS FLOW RATE

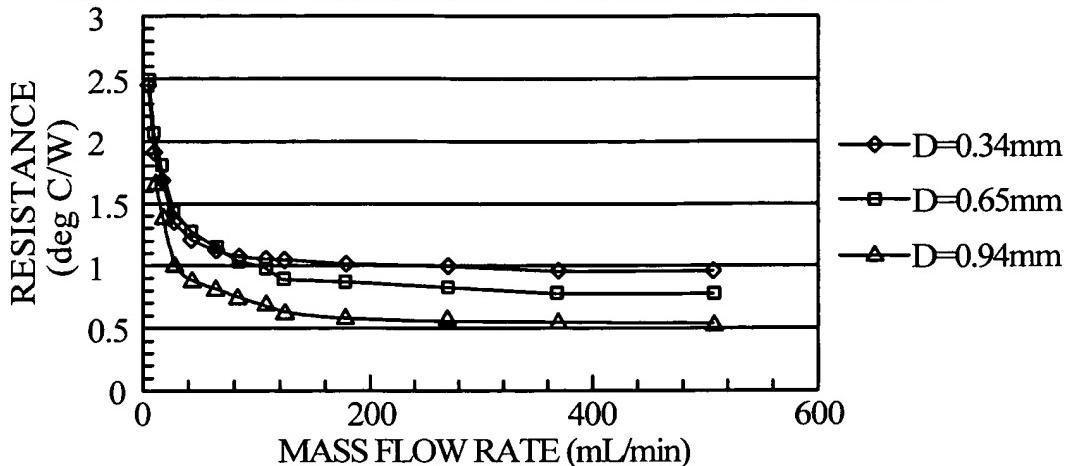


FIG. 13  
 HEAT TRANSFER COEFFICIENT (BASE AREA) VS  
 MASS FLOW RATE

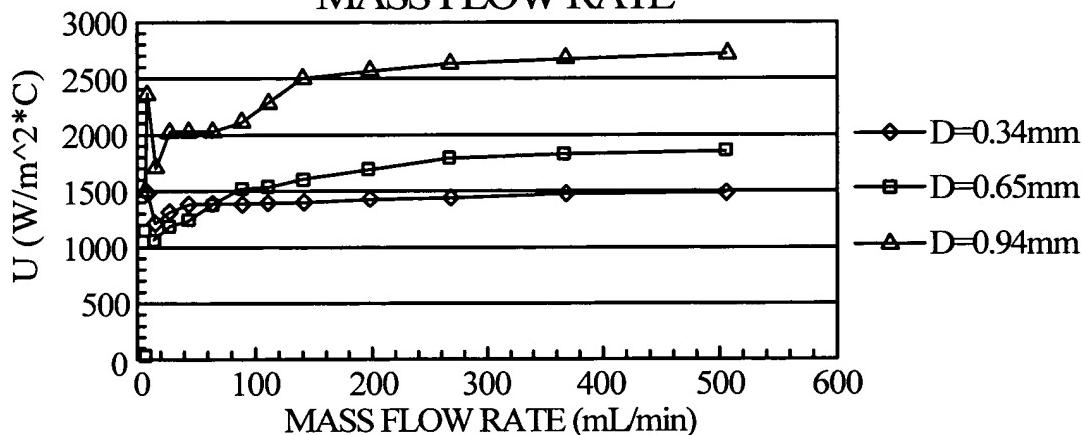


FIG. 14  
 HEAT TRANSFER COEFFICIENT (BASE AREA) VS  
 MASS FLOW RATE

